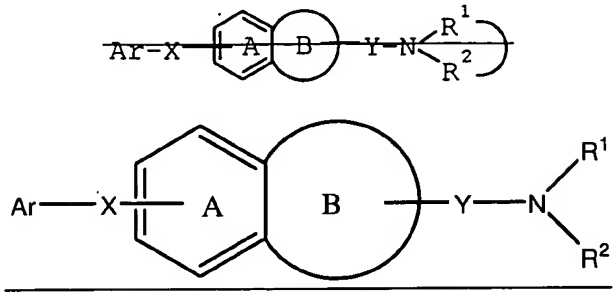
1. (CURRENTLY AMENDED) A compound of the formula:



wherein Ar represents an aromatic ring assembly group which may be substituted or a fused aromatic group which may be substituted;

X represents (i) a bond, (ii) -S-, -SO- or $-SO_2-$, (iii) a C_{1-6} alkylene, C_{2-6} alkenylene or C_{2-6} alkynylene group, each of which may be substituted by 1 to 3 substituents selected from the group consisting of oxo and C_{1-6} alkyl, (iv) -CO-O- or (v) a group of the formula:

$-(CH_2)p-X^1-(CH_2)q-$,

$-(CH_2)r-CO-X^1-$, $-SO_2-NR^8-$ or $-(CH_2)r-SO_2-NR^8-$

wherein X^1 represents O or NR^8,

R^8 represents a hydrogen atom, a hydrocarbon group which may be substituted or an acyl, p represents an integer of 0 to 5, q represents an integer of 1 to 5, p+q is an integer of 1 to 5, and r represents an integer of 1 to 4;

Y represents ~~a divalent C_{1-6} aliphatic hydrocarbon group which may contain an oxygen atom or a sulfur atom and~~ $-CH_2-CH_2-$ or $-CH_2-$, which may be substituted;

R^1 and R^2 each represents ~~a hydrogen atom or~~ a ~~lower~~ C_{1-2} alkyl which may be substituted~~, or R^1 and R^2 form, taken together with the adjacent nitrogen atom, a nitrogen-containing heterocyclic ring which may be substituted~~;

Ring A represents a benzene ring which may be further substituted apart from the group of the formula: -X-Ar wherein each symbol is as defined above; and

Ring B represents a ~~4- to 8-membered~~ cyclohexane ring which may be further substituted apart from the group of the formula: $-Y-NR^1R^2$ wherein each symbol is as defined above;

~~provided that, when the fused ring to be formed by Ring A and Ring B is an indole ring, the group of the formula: -X-Ar- wherein each symbol is as defined above is substituted on 4-, 6- or 7-position of the indole ring,~~

or a salt thereof.

2. (CURRENTLY AMENDED) A compound of claim 1, wherein

Ar is (i) an aromatic ring assembly group which is composed of two or three rings selected from the group consisting of a C_{6-14} aromatic hydrocarbon, a C_{6-14} quinone and a 5- to 14-membered aromatic heterocyclic ring containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, sulfur and oxygen atoms in addition to carbon atoms, which rings are directly bonded to each other via a single bond, and which assembly group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, or

(ii) a fused bi- or tri-cyclic C_{10-14} aryl or 9- to 14-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-

carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy;

R^8 is (a) a hydrogen atom,
(b) a C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-6} cycloalkyl being optionally condensed with one benzene ring, C_{6-14} aryl or C_{7-19} aralkyl group which may be substituted by 1 to 5 substituents selected from the group consisting of (1) halogen atoms, (2) C_{1-3} alkylenedioxy, (3) nitro, (4) cyano, (5) optionally halogenated C_{1-6} alkyl, (6) optionally halogenated C_{3-6} cycloalkyl, (7) optionally halogenated C_{1-6} alkoxy, (8) optionally halogenated C_{1-6} alkylthio, (9) hydroxy, (10) amino, (11) mono-C_{1-6} alkylamino, (12) di-C_{1-6} alkylamino, (13) formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl or C_{6-10} arylsulfonyl, (14) formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido or C_{1-6} alkylsulfonylamino, (15) C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy or nicotinoyloxy, (16) 5- to 7-membered saturated cyclic amino, (17) sulfo, (18) a phenyl or 5- or 6-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, each of which may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino,

mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, (19) an aromatic ring assembly group which is composed of two or three rings selected from the group consisting of a C_{6-14} aromatic hydrocarbon, a C_{6-14} quinone and a 5- to 14-membered aromatic heterocyclic ring containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, sulfur and oxygen atoms in addition to carbon atoms, are directly bonded to each other via a single bond, and which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, and (20) a fused bi- or tri-cyclic C_{10-14} aryl or 9- to 14-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6}

alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, or

(c) formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl or C_{6-10} arylsulfonyl;

Y is a C_{1-2} ~~C_{1-6}~~ alkylene~~, a C_{2-6} alkenylene, a C_{2-6} alkynylene or a group of the formula:~~

~~$-(CH_2)_m-Y^1-(CH_2)_n-$~~ ~~wherein Y^1 is O, S, SO or SO_2,~~

~~m is an integer of 0 to 4,~~

~~n is an integer of 1 to 5, and~~

~~m+n is an integer of 1 to 5~~;

R^1 and R^2 each is a C_{1-2} ~~hydrogen atom or a C_{1-6}~~ alkyl which may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-

carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy, C_{6-10} aryloxy and C_{6-10} aryl ~~or~~

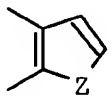
~~R^1 and R^2 form, taken together with the adjacent nitrogen atom, a 3- to 8-membered nitrogen-containing heterocyclic ring having one nitrogen atom and optionally having 1 to 3 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, which ring may be substituted by 1 to 5 substituents selected from the group consisting of (1) halogen atoms, (2) C_{1-3} alkylenedioxy, (3) nitro, (4) cyano, (5) optionally halogenated C_{1-6} alkyl, (6) optionally halogenated C_{3-6} cycloalkyl, (7) optionally halogenated C_{1-6} alkoxy, (8) optionally halogenated C_{1-6} alkylthio, (9) hydroxy, (10) amino, (11) mono-C_{1-6} alkylamino, (12) di-C_{1-6} alkylamino, (13) formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl or C_{6-10} arylsulfonyl, (14) formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido or C_{1-6} alkylsulfonylamino, (15) C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy or nicotinoyloxy, (16) 5- to 7-membered saturated cyclic amino, (17) sulfo, (18) a phenyl or 5- or 6-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, each of which may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to~~

~~7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl carbonyl, C_{1-6} alkoxy carbonyl, C_{6-10} aryl carbonyl, C_{6-10} aryloxy carbonyl, C_{7-16} aralkyloxy carbonyl, 5- or 6-membered heterocycle carbonyl, mono C_{1-6} alkyl carbamoyl, di C_{1-6} alkyl carbamoyl, C_{6-10} aryl carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl carboxamido, C_{6-10} aryl carboxamido, C_{1-6} alkoxy carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl carbonyloxy, C_{6-10} aryl carbonyloxy, C_{1-6} alkoxy carbonyloxy, mono C_{1-6} alkyl carbamoyloxy, di C_{1-6} alkyl carbamoyloxy, C_{6-10} aryl carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, (19) an aromatic ring assembly group which is composed of two or three rings selected from the class **group** consisting of a C_{6-14} aromatic hydrocarbon, a C_{6-14} quinone and a 5- to 14-membered aromatic heterocyclic ring containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, sulfur and oxygen atoms in addition to carbon atoms, are directly bonded to each other via a single bond, and which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl carbonyl, C_{1-6} alkoxy carbonyl, C_{6-10} aryl carbonyl, C_{6-10} aryloxy carbonyl, C_{7-16} aralkyloxy carbonyl, 5- or 6-membered heterocycle carbonyl, mono C_{1-6} alkyl carbamoyl, di C_{1-6} alkyl carbamoyl, C_{6-10} aryl carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl carboxamido, C_{6-10} aryl carboxamido, C_{1-6} alkoxy carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl carbonyloxy, C_{6-10} aryl carbonyloxy, C_{1-6} alkoxy carbonyloxy, mono C_{1-6} alkyl carbamoyloxy, di C_{1-6} alkyl carbamoyloxy, C_{6-10} aryl carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, (20) a fused bi- or tri-cyclic C_{10-14} aryl or 9- to 14-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally~~

~~halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl carbonyl, C_{1-6} alkoxy carbonyl, C_{6-10} aryl carbonyl, C_{6-10} aryloxy carbonyl, C_{7-16} aralkyloxy carbonyl, 5- or 6-membered heterocycle carbonyl, mono C_{1-6} alkyl carbamoyl, di C_{1-6} alkyl carbamoyl, C_{6-10} aryl carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl carboxamido, C_{6-10} aryl carboxamido, C_{1-6} alkoxy carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl carbonyloxy, C_{6-10} aryl carbonyloxy, C_{1-6} alkoxy carbonyloxy, mono C_{1-6} alkyl carbamoyloxy, di C_{1-6} alkyl carbamoyloxy, C_{6-10} aryl carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, (21) an oxo and (22) C_{7-19} aralkyl~~;

Ring A is a benzene ring which may be further substituted by 1 to 3 substituents selected from the group consisting of halogen atoms, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{1-6} alkoxy, hydroxy and amino, apart from the group of the formula: -X-Ar wherein each symbol is as defined above; and

Ring B is a ~~4- to 8-membered~~ ring of the formula:



wherein --- is a single bond ~~or a double bond,~~ and

Z is a C_2 alkylene ~~(i) a bond, (ii) a C_{1-4} alkylene, (iii) a C_{2-4} alkenylene, (iv) -O-CH_2-, (v) -O-CH_2-CH_2- or (vi) a group of the formula: -NR^{8a}-CH_2- or -NR^{8a}-CH_2-CH_2-~~

~~wherein R^{8a} is (a) a hydrogen atom,~~

~~(b) a C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-6} cycloalkyl being optionally condensed with one benzene ring, C_{6-14} aryl or C_{7-19} aralkyl group which may be substituted by 1 to 5 substituents selected form the group consisting of (1) halogen atoms, (2) C_{1-3} alkylenedioxy, (3) nitro, (4) cyano, (5) optionally halogenated C_{1-6} alkyl, (6) optionally halogenated C_{3-6} cycloalkyl, (7) optionally halogenated C_{1-6} alkoxy, (8) optionally halogenated C_{1-6} alkylthio, (9)~~

hydroxy, (10) amino, (11) mono-C_{1-6}-alkylamino, (12) di-C_{1-6}-alkylamino, (13) formyl, carboxy, carbamoyl, C_{1-6}-alkyl-carbonyl, C_{1-6}-alkoxy-carbonyl, C_{6-10}-aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16}-aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono-C_{1-6}-alkyl-carbamoyl, di-C_{1-6}-alkyl-carbamoyl, C_{6-10}-aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6}-alkylsulfonyl or C_{6-10}-arylsulfonyl, (14) formylamino, C_{1-6}-alkyl-carboxamido, C_{6-10}-aryl-carboxamido, C_{1-6}-alkoxy-carboxamido or C_{1-6}-alkylsulfonylamino, (15) C_{1-6}-alkyl-carbonyloxy, C_{6-10}-aryl-carbonyloxy, C_{1-6}-alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6}-alkyl-carbamoyloxy, C_{6-10}-aryl-carbamoyloxy or nicotinoyloxy, (16) 5- to 7-membered saturated cyclic amino, (17) sulfo, (18) a phenyl or 5- or 6-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, each of which may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3}-alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6}-alkyl, optionally halogenated C_{3-6}-cycloalkyl, optionally halogenated C_{1-6}-alkoxy, optionally halogenated C_{1-6}-alkylthio, hydroxy, amino, mono-C_{1-6}-alkylamino, di-C_{1-6}-alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6}-alkyl-carbonyl, C_{1-6}-alkoxy-carbonyl, C_{6-10}-aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16}-aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono-C_{1-6}-alkyl-carbamoyl, di-C_{1-6}-alkyl-carbamoyl, C_{6-10}-aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6}-alkylsulfonyl, C_{6-10}-arylsulfonyl, formylamino, C_{1-6}-alkyl-carboxamido, C_{6-10}-aryl-carboxamido, C_{1-6}-alkoxy-carboxamido, C_{1-6}-alkylsulfonylamino, C_{1-6}-alkyl-carbonyloxy, C_{6-10}-aryl-carbonyloxy, C_{1-6}-alkoxy-carbonyloxy, mono-C_{1-6}-alkyl-carbamoyloxy, di-C_{1-6}-alkyl-carbamoyloxy, C_{6-10}-aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, (19) an aromatic ring-assembly group which is composed of two or three rings selected from the class consisting of a C_{6-14}-aromatic hydrocarbon, a C_{6-14}-quinone and a 5- to 14-membered aromatic heterocyclic ring containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, sulfur and oxygen atoms in addition to carbon atoms, are directly bonded to each other via a single bond, and which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3}-alkylenedioxy, nitro, cyano, optionally

halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono C_{1-6} alkyl-carbamoyloxy, di C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, and (20) a fused bi- or tri-cyclic C_{10-14} aryl or 9- to 14-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono C_{1-6} alkyl-carbamoyl, di C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono C_{1-6} alkyl-carbamoyloxy, di C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, or

(c) formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl,

~~mono C_{1-6} alkyl carbamoyl, di C_{1-6} alkyl carbamoyl, C_{6-10} aryl carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl or C_{6-10} arylsulfonyl~~,

which ring may be further substituted by 1 to 3 substituents selected from the group consisting of oxo, C_{1-6} alkyl and hydroxy, apart from the group of the formula: -Y-NR^1R^2 wherein each symbol is as defined above.

3. (ORIGINAL) A compound of claim 1, wherein Ar is an aromatic ring assembly group which may be substituted.

4. (ORIGINAL) A compound of claim 3, wherein the aromatic rings of the aromatic ring assembly group are two or three aromatic rings selected from the group consisting of benzene, thiophene, pyridine, pyrimidine, 1,2,4-oxadiazole, 1,3,4-oxadiazole, naphthalene and benzofuran.

5. (ORIGINAL) A compound of claim 3, wherein the aromatic ring assembly group is 2-, 3- or 4-biphenylyl.

6. (ORIGINAL) A compound of claim 1, wherein Ar is a 4-biphenylyl which may be substituted by 1 to 3 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle carbonyl, mono-C_{1-6} alkyl-carbamoyl, di-C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono-C_{1-6} alkyl-carbamoyloxy, di-C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy.

7. (ORIGINAL) A compound of claim 1, wherein X is a divalent C_{1-6} aliphatic hydrocarbon group which may contain an oxygen atom.

8. (ORIGINAL) A compound of claim 1, wherein X is a C_{1-6} alkylene.

9. – 12. (CANCELED)

9

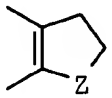
~~13.~~ (ORIGINAL) A compound of claim 1, wherein X^1 is a group of the formula: $-SO_2-NR^8-$ wherein each symbol has the same meaning as in claim 1.

10 ~~14.~~ (ORIGINAL) A compound of claim ~~13~~ 9, wherein R^8 is hydrogen.

15. – 17. (CANCELED)

11 ~~18.~~ (ORIGINAL) A compound of claim 1, wherein Ring A is a benzene ring substituted by the group of the formula: -X-Ar wherein each symbol has the same meaning as in claim 1.

12 ~~19.~~ (CURRENTLY AMENDED) A compound of claim 1, wherein Ring B is a ~~4- to 8-membered~~ ring of the formula:



wherein Z is a C_2 alkylene ~~(i) a bond, (ii) a C_{1-4} alkylene, (iii) a C_{2-4} alkenylene, (iv) $-O-CH_2-$, (v) $-O-CH_2-CH_2-$ or (vi) a group of the formula: $-NR^{8a}-CH_2-$ or $-NR^{8a}-CH_2-CH_2-$ wherein R^{8a} is (a) a hydrogen atom, (b) a C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-6} cycloalkyl being optionally condensed with one benzene ring, C_{6-14} aryl or C_{7-19} aralkyl group which may be substituted by 1 to 5 substituents selected form the group consisting of (1) halogen atoms, (2) C_{1-3} alkylenedioxy, (3) nitro, (4) cyano, (5) optionally halogenated C_{1-6} alkyl, (6) optionally halogenated C_{3-6} cycloalkyl, (7) optionally halogenated C_{1-6} alkoxy, (8) optionally halogenated C_{1-6} alkylthio, (9) hydroxy, (10) amino, (11) mono C_{1-6} alkylamino, (12) di C_{1-6} alkylamino, (13) formyl, carboxy, carbamoyl, C_{1-6} alkyl carbonyl, C_{1-6} alkoxy carbonyl, C_{6-10} aryl carbonyl, C_{6-10} aryloxy carbonyl, C_{7-16} aralkyloxy carbonyl, 5- or 6-membered heterocycle carbonyl, mono C_{1-6} alkyl carbamoyl, di C_{1-6} alkyl carbamoyl, C_{6-10} aryl carbamoyl, 5- or 6-membered heterocycle carbamoyl, C_{1-6} alkylsulfonyl or C_{6-10} arylsulfonyl, (14) formylamino, C_{1-6} alkyl carboxamido, C_{6-10} aryl carboxamido, C_{1-6} alkoxy carboxamido or C_{1-6} alkylsulfonylamino, (15) C_{1-6} alkyl carbonyloxy, C_{6-10} aryl carbonyloxy, C_{1-6} alkoxy carbonyloxy, mono C_{1-6} alkyl carbamoyloxy, di C_{1-6} alkyl carbamoyloxy, C_{6-10} aryl carbamoyloxy or nicotinoyloxy, (16) 5- to 7-membered saturated cyclic amino, (17) sulfo, (18) a phenyl or 5- or 6-membered~~

aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, each of which may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono C_{1-6} alkyl-carbamoyl, di C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono C_{1-6} alkyl-carbamoyloxy, di C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, (19) an aromatic ring-assembly group which is composed of two or three rings selected from the class consisting of a C_{6-14} aromatic hydrocarbon, a C_{6-14} quinone and a 5- to 14-membered aromatic heterocyclic ring containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, sulfur and oxygen atoms in addition to carbon atoms, are directly bonded to each other via a single bond, and which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono C_{1-6} alkyl-carbamoyl, di C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono C_{1-6} alkyl-carbamoyloxy, di C_{1-6} alkyl-

~~carbamoyloxy, C_{6-10} aryl carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, and (20) a fused bi- or tri-cyclic C_{10-14} aryl or 9- to 14-membered aromatic heterocyclic group containing 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur atoms in addition to carbon atoms, which group may be substituted by 1 to 5 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{3-6} cycloalkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono C_{1-6} alkylamino, di C_{1-6} alkylamino, 5- to 7-membered saturated cyclic amino, formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono C_{1-6} alkyl-carbamoyl, di C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6} alkylsulfonyl, C_{6-10} arylsulfonyl, formylamino, C_{1-6} alkyl-carboxamido, C_{6-10} aryl-carboxamido, C_{1-6} alkoxy-carboxamido, C_{1-6} alkylsulfonylamino, C_{1-6} alkyl-carbonyloxy, C_{6-10} aryl-carbonyloxy, C_{1-6} alkoxy-carbonyloxy, mono C_{1-6} alkyl-carbamoyloxy, di C_{1-6} alkyl-carbamoyloxy, C_{6-10} aryl-carbamoyloxy, nicotinoyloxy and C_{6-10} aryloxy, or~~

~~(c) formyl, carboxy, carbamoyl, C_{1-6} alkyl-carbonyl, C_{1-6} alkoxy-carbonyl, C_{6-10} aryl-carbonyl, C_{6-10} aryloxy-carbonyl, C_{7-16} aralkyloxy-carbonyl, 5- or 6-membered heterocycle-carbonyl, mono C_{1-6} alkyl-carbamoyl, di C_{1-6} alkyl-carbamoyl, C_{6-10} aryl-carbamoyl, 5- or 6-membered heterocycle-carbamoyl, C_{1-6} alkylsulfonyl or C_{6-10} arylsulfonyl,~~

which ring may be further substituted by 1 to 3 substituents selected from the group consisting of oxo, C_{1-6} alkyl and hydroxy, apart from the group of the formula: -Y-NR^1R^2 wherein each symbol has the same meaning as in claim 1.

20. – 24. (CANCELED)

13 25. (CURRENTLY AMENDED) A compound of claim 1, wherein

Ar is 2-, 3- or 4-biphenylyl which may be substituted by 1 to 3 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, hydroxy, amino, mono-C_{1-6} alkylamino, di-C_{1-6} alkylamino, formyl and C_{1-6} alkyl-carboxamido;

X is C_{1-3} alkylene which may contain an oxygen atom;

Y is $\underline{C_{1-2}}$ ~~C_{1-6}~~ alkylene;

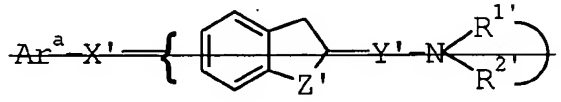
R^1 and R^2 each is $\underline{C_{1-2}}$ ~~C_{1-6}~~ alkyl;

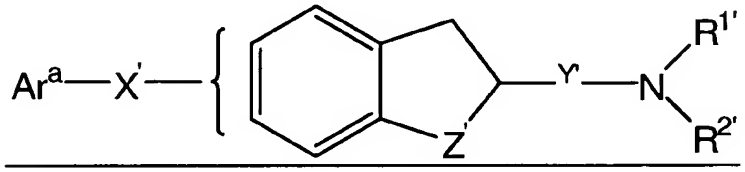
Ring A is a benzene ring substituted by the group of the formula: -X-Ar wherein each symbol has the same meaning as in claim 1; and

Ring B is a cyclohexane ~~6-membered carbocyclic or heterocyclic~~ ring substituted by the group of the formula: -Y-NR^1R^2 wherein each symbol has the same meaning as in claim 1.

26. (CANCELED)

14 27. (CURRENTLY AMENDED) A compound of claim 1, which is a compound of the formula:





wherein Ar^a is (i) 2, 3- or 4-biphenylyl which may be substituted by 1 to 3 substituents selected from the group consisting of halogen atoms, C_{1-3} alkylenedioxy, nitro, cyano, optionally halogenated C_{1-6} alkyl, optionally halogenated C_{1-6} alkoxy, optionally halogenated C_{1-6} alkylthio, amino, formyl and C_{1-6} alkyl-carboxamido, (ii) 4-(2-thienyl)phenyl or 4-(3-thienyl)phenyl, (iii) 4-(3-pyridyl)phenyl, (iv) 6-phenyl-3-pyridyl which may be substituted by a C_{1-6} alkoxy, (v) 5-phenyl-1,3,4-oxadiazol-2-yl, (vi) 4-(2-naphthyl)phenyl, (vii) 4-(2-benzofuranyl)phenyl, (viii) 1- or 2-naphthyl, (ix) 2-quinolyl, (x) 2-benzothiazolyl or (xi) 2-benzofuranyl;

X' is ~~$-CH_2-O-$~~, $-SO_2-NH-$ ~~or a group of the formula:~~

~~$-CH_2-NR^{8'}$ wherein $R^{8'}$ is hydrogen or C_{1-3} alkyl carbonyl~~;

Y' is ~~C_{1-6} alkylene~~ $\underline{-CH_2-CH_2-}$ or $\underline{-CH_2-}$;

Z' is $-CH_2-CH_2-$ ~~or a group of the formula:~~

~~$-NR^{8''}-CH_2-$ wherein $R^{8''}$ is hydrogen, C_{1-3} alkyl, C_{1-3} alkyl-carbonyl or C_{1-3} alkylsulfonyl;~~

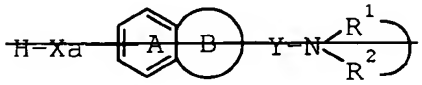
and

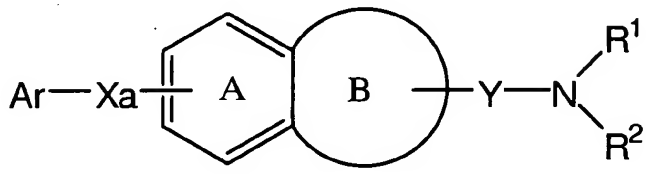
$R^{1'}$ and $R^{2'}$ each is $\underline{C_{1-2}}$ ~~C_{1-6}~~ alkyl which may be substituted by 1 to 5 substituents selected from the group consisting of di-C_{1-3} alkylamino, C_{1-3} alkoxy-carbonyl and phenyl~~, or $R^{1'}$ and $R^{2'}$ form, taken together with the adjacent nitrogen atom, a pyrrolidin-1-yl, piperidino or piperazin-1-yl which may be substituted by 1 to 3 substituents selected from the group consisting of hydroxy, C_{1-3} alkoxy carbonyl, piperidino, phenyl and benzyl~~, or a salt thereof.

28. (CANCELED)

29. (CURRENTLY AMENDED) A process for producing of a compound of claim 1, which comprises;

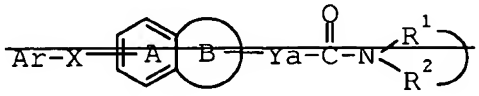
i) subjecting a compound of the formula:

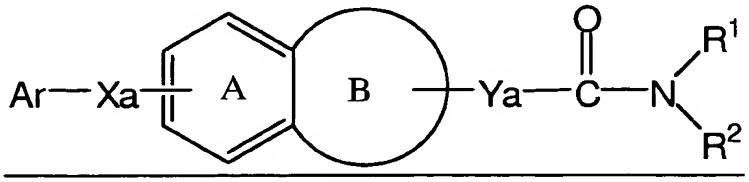




wherein Xa represents an oxygen atom, a sulfur atom which may be oxidized or a group of the formula: NR^8 wherein R^8 represents a hydrogen atom, a hydrocarbon group which may be substituted or an acyl; and the other symbols have the same meanings as in claim 1, or a salt thereof, to alkylation or acylation and optionally followed by aryl-coupling of the resultant compound;

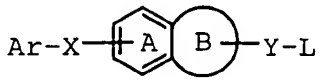
ii) subjecting a compound of the formula:





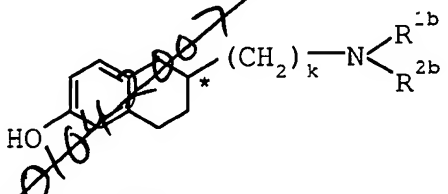
wherein Ya represents a group to be formed by removing a methylene from Y; and the other symbols have the same meanings as in claim 1, or a salt thereof, to reduction; or

iii) subjecting a compound of the formula:



wherein L represents a leaving group; and the other symbols have the same meanings as in claim 1, to amination.

30. (Withdrawn) A n optical isomer of the compound of the formula:



wherein R^{1b} and R^{2b} each represents methyl or ethyl, k represents 1 or 2, and * indicates the position of the asymmetric carbon, or a salt thereof.

31. (Previously Presented) A pharmaceutical composition which comprises a compound of claim 1 and a pharmaceutically acceptable carrier, excipient or diluent.

32. (ORIGINAL) A pharmaceutical composition of claim 31 which is an inhibitor for production and/or secretion of amyloid-β protein.

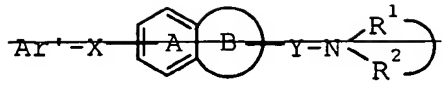
33. (ORIGINAL) A pharmaceutical composition of claim 31 which is for preventing and/or treating neurodegenerative diseases caused by amyloid-β protein.

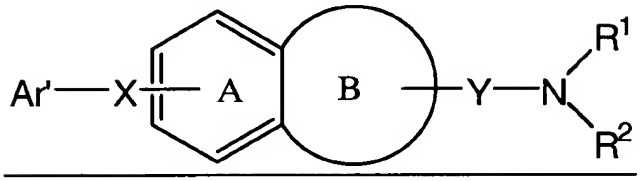
34. (ORIGINAL) A pharmaceutical composition of claim 32, wherein the neurodegenerative disease caused by amyloid-β protein is Alzheimer's disease.

35. (Withdrawn, Re-Presented) A method of inhibiting production and/or secretion of amyloid-β protein in mammal, which comprises administering to said mammal an effective amount of a compound of claim 1 or a pharmaceutically acceptable salt thereof with a pharmaceutically acceptable excipient, carrier or diluent.

36. (Previously Presented) A method for manufacturing a pharmaceutical composition for inhibiting production and/or secretion of amyloid-β protein comprising combining a compound of claim 1 with a pharmaceutically acceptable carrier, excipient or diluent.

37. (Currently Amended) An inhibitor for production and/or secretion of amyloid-β protein, which comprises a compound of the formula:





wherein Ar' represents an aromatic group which may be substituted;

X represents (i) a bond, (ii) -S-, -SO- or -SO_2-, (iii) a C_{1-6} alkylene, C_{2-6} alkenylene or C_{2-6} alkynylene group, each of which may be substituted by 1 to 3 substituents selected from the group consisting of oxo and C_{1-6} alkyl, (iv) -CO-O- or (v) a group of the formula:

$-(CH_2)p-X^1-(CH_2)q-$,

$-(CH_2)r-CO-X^1-$, $-SO_2-NR^8-$ or $-(CH_2)r-SO_2-NR^8-$

wherein X^1 represents O or NR^8,

R^8 represents a hydrogen atom, a hydrocarbon group which may be substituted or an acyl, p represents an integer of 0 to 5, q represents an integer of 1 to 5, p+q is an integer of 1 to 5, and r represents an integer of 1 to 4;

Y represents <u>$-CH_2-CH_2-$ or $-CH_2-$</u> ~~a divalent C_{1-6} aliphatic hydrocarbon group which may contain an oxygen atom or a sulfur atom and~~ <u>, which</u> may be substituted;

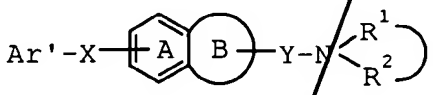
R^1 and R^2 each represents a <u>C_{1-2}</u> ~~hydrogen atom or a lower alkyl~~ which may be substituted~~, or R^1 and R^2 form, taken together with the adjacent nitrogen atom, a nitrogen-containing heterocyclic ring which may be substituted~~;

Ring A represents a benzene ring which may be further substituted apart from the group of the formula: -X-Ar wherein each symbol is as defined above; and

Ring B represents a <u>cyclohexane</u> ~~4- to 8-membered~~ ring which may be further substituted apart from the group of the formula: $-Y-NR^1R^2$ wherein each symbol is as defined above,

or a salt thereof.

38. (Withdrawn) A method of inhibiting production and/or secretion of amyloid-β protein in mammal, which comprises administering to said mammal an effective amount of a compound of the formula:



wherein Ar' represents an aromatic group which may be substituted;

X represents (i) a bond, (ii) -S-, -SO- or $-SO_2-$, (iii) a C_{1-6} alkylene, C_{2-6} alkenylene or C_{2-6} alkynylene group, each of which may be substituted by 1 to 3 substituents selected from the group consisting of oxo and C_{1-6} alkyl, (iv) -CO-O- or (v) a group of the formula: $-(CH_2)p-X^1-$,

$-(CH_2)p-X^1-(CH_2)q-$,

$-(CH_2)r-CO-X^1-$, $-SO_2-NR^8-$ or $-(CH_2)r-SO_2-NR^8-$

wherein X^1 represents O or NR^8,

R^8 represents a hydrogen atom, a hydrocarbon group which may be substituted or an acyl, p represents an integer of 0 to 5, q represents an integer of 1 to 5, p+q is an integer of 1 to 5, and r represents an integer of 1 to 4;

Y represents a divalent C_{1-6} aliphatic hydrocarbon group which may contain an oxygen atom or a sulfur atom and may be substituted;

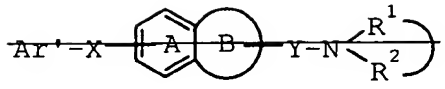
R^1 and R^2 each represents a hydrogen atom or a lower alkyl which may be substituted, or

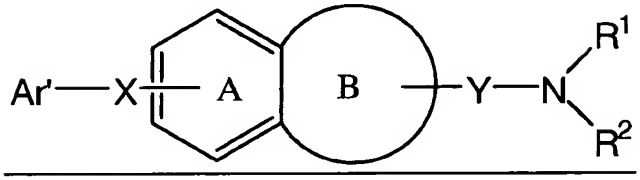
R^1 and R^2 form, taken together with the adjacent nitrogen atom, a nitrogen-containing heterocyclic ring which may be substituted;

Ring A represents a benzene ring which may be further substituted apart from the group of the formula: -X-Ar wherein each symbol is as defined above; and

Ring B represents a 4- to 8-membered ring which may be further substituted apart from the group of the formula: $-Y-NR^1R^2$ wherein each symbol is as defined above, or a pharmaceutically acceptable salt thereof with a pharmaceutically acceptable excipient, carrier or diluent.

39. (Withdrawn, Currently Amended, Re-Presented) A method for making a pharmaceutical formulation for inhibiting production and/or secretion of amyloid-β protein comprising combining a compound of the formula:





wherein Ar' represents an aromatic group which may be substituted;

X represents (i) a bond, (ii) -S-, -SO- or $-SO_2-$, (iii) a C_{1-6} alkylene, C_{2-6} alkenylene or C_{2-6} alkynylene group, each of which may be substituted by 1 to 3 substituents selected from the group consisting of oxo and C_{1-6} alkyl, (iv) -CO-O- or (v) a group of the formula:

$-(CH_2)p-X^1-(CH_2)q-$, $-(CH_2)r-CO-X^1-$, $-SO_2-NR^8-$ or $-(CH_2)r-SO_2-NR^8-$

wherein X^1 represents O or NR^8,

R^8 represents a hydrogen atom, a hydrocarbon group which may be substituted or an acyl, p represents an integer of 0 to 5, q represents an integer of 1 to 5, p+q is an integer of 1 to 5, and r represents an integer of 1 to 4;

Y represents <u>$-CH_2-CH_2-$ or $-CH_2-$</u> ~~a divalent C_{1-6} aliphatic hydrocarbon group~~ which may ~~contain an oxygen atom or a sulfur atom and may~~ be substituted;

R^1 and R^2 each represents a ~~C_{1-2} hydrogen atom or a lower~~ alkyl which may be substituted, or ~~R^1 and R^2 form, taken together with the adjacent nitrogen atom, a nitrogen-containing heterocyclic ring which may be substituted~~;

Ring A represents a benzene ring which may be further substituted apart from the group of the formula: -X-Ar wherein each symbol is as defined above; and

Ring B represents a <u>cyclohexane</u> ~~4- to 8-membered~~ ring which may be further substituted apart from the group of the formula: $-Y-NR^1R^2$ wherein each symbol is as defined above, or a salt thereof ~~for~~ with a pharmaceutically acceptable carrier, excipient or diluent.